



## Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at <http://about.jstor.org/participate-jstor/individuals/early-journal-content>.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact [support@jstor.org](mailto:support@jstor.org).

But there are also special paths for pain that give ideas of injurious effects that the body as a whole can control. Natural selection has evolved ideas and memory in those lines only where such psychic activities are useful. For the body in general it has been found sufficient to retain the common sensation of protoplasm.

*Change of Life.* TILT.

Tilt advocates the view that the visceral ganglia are the seat of the emotions and brings much matter of observation of disturbance of these ganglia by the involution of the ovaries. The effects of "gangliopathy" are such as to profoundly disturb the body and cause even insanity. A blow at the pit of the stomach may kill as quickly as a puncture of the *nœud vital*. Note the disturbance of sea-sickness, the vomiting of pregnancy, nightmare and of *globus hystericus*, which latter begins by a sensation rising from the pit of the stomach. This may be caused by continued pressure on the ovaries, and end in convulsions. Hysteria is the "keystone of mental pathology," and if he were lecturing on insanity he would begin with an accurate study of a complete case of hysteria and show the regular steps by which it may culminate in mania and other forms of insanity. "The epileptic aura radiates from the ovaries. Between haziness of intellect and idiocy there are all gradations, between a girl's temper and mania there is no break, and fidgets may pass through hysteria into convulsions. We must go back to Hippocrates who thought the abdominal viscera caused insanity. There is no passion without ganglionic or visceral sensation." These are pregnant words but in extending the realm of the soul from the central nervous system to all nerves, why draw the line here? Nerve cells are part of the same protoplasm, have a common germinal ancestor with all other cells. The fundamental properties of cells are alike. If a cartilage cell does not play so important a part in the psychic activities of the body as a ganglion cell, neither is it situated favorably for such a purpose,—it is not connected by a nerve to an end-organ. Even in the nervous system itself it becomes necessary to distinguish parts that act outside of consciousness. The intellect is indeed produced through the experiences of a special portion of the central nervous system, but this is only one organ of the soul. The greatest philosophers have seen the necessity for extending the realm of the soul. Leibnitz for instance considers every atom to be souled. What idea is denoted by this term soul? The word stands for a philosophic necessity rather than for a definite idea. The problems of science are always pushed back to a threshold where something different from matter must be postulated, something that does not suffer from the limitations of three dimensional space, the law of the conservation of energy and other ideas inseparable from the sensible universe. With reference to such a realm thought must work without images, as for example is the case in the consideration of *non-Euclidian geometry* (geometry of more than three dimensions). From such a standpoint it becomes rational to say that all the hereditary characters are conserved in the egg, though only a few are actually manifested in its structure at any one period of development, and again, that each gemmule contains all the characters of the complete being of which it is a part, often only a transitory part.

*The Soul, or Rational Psychology.* SWEDENBORG, pp. 388. New York, 1887. Translated by Frank Sewall from Dr. Tafel's Latin edition, Tübingen, 1849, from posthumous MS. Upsala, 1742. (Part VII of "The Animal Kingdom.")

The preceding leads us logically to consider the last work on this list for review, which though only relatively modern, is chosen for its rep-

representative character. It is probably the ablest exposition from a transcendental standpoint we have. The author is not in repute among scientists of to-day for obvious reasons. He is purely a speculator, and still worse, in his later life became subject to hallucinations that were incorporated as the keystone to his system, and which like the Comtean system became the creed of a religious sect.

This "Aristotle of the North" informs us that the great purpose in all his studies has been the discovery of the soul. "There is no other field of exploration than that of the anatomy of the organic body." This was before the time of cell theories, embryology and physiological experiment. In his dissections, Swedenborg found the fibre (muscle, nerve, arterial, etc.) making up most of the body. The fibre is considered the unit of structure, but the fibres of the brain end in "glandules" (ganglion cells, undoubtedly). All fibres are conceived as hollow, and as carrying a blood. There are three degrees of fibres. The tunic of the blood vessel is composed of fibres of the same grade of organization as the constituents of a nerve. The tunic of the nerve fibre is composed of an organization of "simple fibres," (nearly corresponding to our idea of *fibrillae*.) The last carry the "supereminent blood" (nerve force), and are themselves composed of molecular constituents called "pure intellectories," which are "vortical forms" (cf. "vortex rings" of our physicists) and are the soul in its first spatial manifestation. These are incapable of dissolution, are not affected even by fire, and hence not subject to death, which last is only a dissolution of the coarser grades of organization down to these monads. In each is a special determination of the soul so harmoniously interrelated as to constitute the "form" of the individual or species, from which the spatial relations of the parts of the body become derived during development. When death dissipates the monads in three dimensional space, their relations in the soul-form are undisturbed. The organic relations of the intellectories is the "pure intellect," present as the life (or hereditary nature) of all biologic beings; it constitutes the celestial body of the soul, and unless a coarser body is formed, the soul remains out of relation to the environment of the world. This coarser body constitutes apparently what we know as protoplasm. It can receive impressions from nature only by means of different forms of vibrations. Each form of vibration is received by the cells as such, and is transformed into sensation in which the relations or qualities of the different forms of the vibrations are preserved, and hence the specific energy of nerves. The constituent units of a derived organization are termed the "internal;" the derived unit the "external." The internal of one form is itself at the same time the external of its units. The units are always each the complete image ("effigy") of the derived or greater unit. Each brain cell is a brain in a less form, and its units the "brain in a least form." Now, when a change is produced in the external, the "harmony" of the external and internal causes a correspondent change in the internal. But if we could see the changes it would be impossible to compare the two sets, they differ so radically in their nature. This is the celebrated "doctrine of correspondences," by which Swedenborg sought to explain all things celestial and terrestrial. There is therefore no commensuration between a physical vibration and a change of consciousness which arises coincidentally; and hence there is no psychic localization in the brain. Every stimulus received, radiates to all parts; but by the laws of corresponding harmonies the qualities and relations of the external stimulus, as for instance the different parts of a retinal image, affect the monads with the relations completely preserved. For in the soul is a "pre-established harmony" corresponding to all possible modifications that may arise. These harmonies are affected (like sympathetic vibrations) in this manner, viz., the harmony or relation of the vibrations

causes sensations. The relations of the sensations affect the next "internal" and cause the "affection" termed perception (images). The relation of images affects corresponding harmonies in the "pure intellect," and these changes are *thoughts*. What is the difference between the human and the animal soul? Here, as elsewhere, Swedenborg is obscure and extremely difficult to comprehend. We feel sure that he is logical and has definite ideas on the subject, even if we see as "through a glass darkly."

The life of the sensations constitutes the animal soul or "animus," also called the "inferior mind." In the animal this is completely dominated by the "superior mind," (pure intellect) and has no independence of its own. In man there is interpolated between the two, a "rational mind," which exists at first as a power of attention or free will. This is the "man proper" as to his self-consciousness. He can turn either to the sensations or to the superior mind and establish the relations existing in the animal by allowing the superior mind to control the animus. But failing in this, the animus asserts its control, and being blind like Schopenhauer's Will, works destruction. This is the Fall of Man. This rational mind becomes organized in time (ontogeny) out of the experiences of life. Every cell is both sensory and motor, both receiving and giving stimuli. Each cell has its own will, and hence wills must be distinguished into genera and species. Will is simply the effort to break forth into act, and action ensues when the tension overcomes the obstacles on the reception of appropriate stimuli.

This is a meagre outline of salient points of a system that goes into complete details of all phenomena, and seems to compare favorably with the systems of other great philosophers; it is remarkable that all notice of Swedenborg is wanting in histories of philosophy. Besides this the man himself, with his thirty years' record of orderly daily hallucinations offers a wonderful problem to the student of psychology. This work closes the pre-hallucinatory portion of Swedenborg's literary career, and one cannot help thinking that had he died then, his fame would have been greater. Now, nobody thinks of him except as the "seer," or "madman." The following words from the Rational Psychology, sound quite sane. "When we live as souls perhaps we ourselves shall laugh at what we have guessed at in so childish a manner."

If this review shall suggest a closer sympathy between Biologists and Psychologists in the effort to solve the problems of life, it will have accomplished its mission.

### III.—CRIMINOLOGICAL.

BY ARTHUR MACDONALD, PH. D.

Criminal anthropology is one of the most recent sciences. In 1885, the "First International Congress" was held at Rome. The second congress met at Paris last August. At first the scientific study of criminology was looked upon with suspicion. At present, interest in the subject is greatly increasing. Like every new science, it is in its polemical stage. The Italians are the innovators. The criminologists are divided into two parties: one emphasizes the pathological or atavistic causes; the other, the psychological and sociological. The latter are subdivided into socialists, who would account for everything by the inequality of economic conditions; and those who take into consideration all social phenomena. The literature is almost wholly new.

The divisions of Criminal Anthropology and its relations to other sciences might be indicated as follows:

Criminal *Embryology* would consider the equivalents of crime in the vegetable and animal kingdoms. The *Anatomy* of Criminology includes